<u>IN THE CLAIMS</u>

Please amend the following claims:

5. – 8. (canceled)

9. (currently amended) An optical module for coupling to an optical fiber comprising:

a laser for emitting light;

a ~~transfer lens~~ <u>an optical element</u> for transferring light emitted by the laser into the optical fiber; wherein the ~~transfer lens~~ <u>an optical element</u> includes

a diffractive surface that is defined by a surface function; wherein the surface function includes a first phase function <u>that includes a first m value</u> combined with a second phase function <u>that includes a second m value; wherein the first m value and the second m value are selectively adjustable to control</u> ~~for providing favorable~~ launch conditions and ~~reflection management~~ <u>manage reflections</u>.

10. (original) The optical module of claim 9 wherein the first phase function has angular symmetry; and

wherein the second phase function has radial symmetry and a cusp region with a discontinuous slope.

11. (currently amended) The optical module of claim 9 wherein the ~~transfer lens~~ <u>optical element</u> provides reflection management so that light reflected from the end of the optical fiber is not directed to a location at which light is emitted by the laser.

12. (currently amended) The optical module of claim 9 wherein the ~~transfer lens~~ <u>optical element</u> provides favorable launch conditions so that light launched into the optical fiber avoids index anomalies along the axis of the optical fiber.

13. (original) The optical module of claim 9 wherein the optical module is one of an optical receiver, an optical transmitter, and an optical transceiver.

14. (original) The optical module of claim 9 wherein the first phase function is a spiral phase function; and wherein the second phase function is a cone phase function.

15. (currently amended) The optical module of claim ~~10~~ 14 wherein the spiral phase function can be expressed as follows:

$$\phi = m_S * \theta$$

where 'm_S' is a real number that describes how fast the phase changes as one traverses a circle about the center of the aperture; wherein 'θ' is an angular coordinate; and

the cone phase function can be expressed as follows:

$$\phi = 2\pi m_C * \rho$$

where 'm_C' is a real number that describes how fast the phase changes as one traverses a radial line from the center of the aperture;

wherein 'ρ' is a normalized radial coordinate; wherein ρ is equal to 1 at the edge of the aperture, and ρ is equal to zero at the center of the aperture.

16. (original) The optical module of claim 15 wherein m_S is equal to =3 and m_C is equal to -2.

17. (original) The optical module of claim 9 further comprising:

an optical surface for focusing the light onto the optical fiber; and

wherein the diffractive surface receives and collimates the light originating form the laser.

18. (currently amended) The ~~transfer lens~~ optical module of claim 9 further comprising:

a packaging for housing the light source;

wherein the diffractive surface is disposed in the housing.

19. (new) The optical module of claim 14 wherein the cone phase function includes a cross section that is one of a generally concave profile, a generally triangular cross-section, a generally convex profile, an inverted generally concave profile, an inverted generally triangular cross-section, and an inverted generally convex profile.

20. (new) The optical module of claim 15 wherein the values of m_S and m_C are selectively adjustable to control factors that include one of coupling efficiency, misalignment tolerances, and the amount of feedback.

21. (new) The optical module of claim 15 wherein the values of m_S and m_C are selectively adjustable to suit the requirements of a particular optical application.

22. (new) The optical module of claim 9 further comprising:

a third phase function that includes one of a lens phase function, an aberration control phase function, a prism phase function, and a grating phase function.